



بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

لا تنسوا اخوتنا بغزة من الدعاء

# TEST BANK FOR BIORISK LECTURE IN BACTERIOLOGY

Doctor 022



1. What is the primary focus of biosafety measures?
- A) Protection against theft
  - B) Prevention of intentional releases
  - C) Prevention of unintentional exposure to biological agents
  - D) Sterilization techniques

\*Justification: The primary focus of biosafety is to prevent unintentional exposure to biological agents and toxins.\*

\*\*Answer: C) Prevention of unintentional exposure to biological agents\*\*

2. How does biosecurity differ from biosafety?
- A) Biosecurity focuses on sterilization techniques
  - B) Biosafety prevents intentional unauthorized releases
  - C) Biosecurity involves facility design
  - D) Biosecurity prevents loss and theft of biological agents

\*Justification: Biosecurity is concerned with preventing the loss, theft, misuse, and unauthorized access to biological agents.\*

\*\*Answer: D) Biosafety prevents loss and theft of biological agents\*\*

3. What is the purpose of sterilization in biosafety?
- A) Inactivates harmful microbes
  - B) Disinfects work surfaces
  - C) Enhances facility design
  - D) Trains personnel

\*Justification: Sterilization aims to inactivate all microbes, typically achieved with methods like steam autoclaving.\*

\*\*Answer: A) Inactivates harmful microbes\*\*

4. What are the primary barriers protecting workers from biorisks in a laboratory?
- A) Facility design and engineering controls
  - B) Liquid pipetting devices and instruments
  - C) Personal Protective Equipment (PPE) and biosafety cabinets
  - D) Disinfection and sterilization techniques

\*Justification: Primary barriers include equipment, infrastructure design, personnel qualities, and procedural techniques.\*

\*\*Answer: C) Personal Protective Equipment (PPE) and biosafety cabinets\*\*

5. What does biorisk assessment involve?
- A) Prevention of unauthorized access
  - B) Objective assessment of risk to biosafety and biosecurity
  - C) Facility design for laboratories
  - D) Specific work practices in a biosafety cabinet

\*Justification: Biorisk assessment is the objective evaluation of conditions and the level of risk they present to biosafety and biosecurity.\*

\*\*Answer: B) Objective assessment of risk to biosafety and biosecurity\*\*

6. What is the primary purpose of risk assessment in the context of containment laboratories?

- A) Identifying hazards and controlling them
- B) Planning laboratory layout
- C) Monitoring security measures
- D) Prioritizing biosafety signs

**\*Justification:** Risk assessment is primarily used to identify hazards and determine methods for their control.\*

**\*\*Answer:** A) Identifying hazards and controlling them\*\*

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7. What are the secondary barriers that protect workers from biosrisk in containment laboratories?\*

- A) High-Efficiency Particular Air (HEPA) filters
- B) Locking doors and security measures
- C) Access to sterilization (e.g., autoclave)
- D) Proper signage - post biosafety/biosecurity warnings

**\*Justification:** Secondary barriers include the design of the infrastructure/building, which involves locking doors and security measures.\*

**\*\*Answer:** B) Locking doors and security measures\*\*

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8. Which containment measure is mentioned for small animal housing with infected rodents?

- A) Special facilities
- B) Disposable cages
- C) Knowledge of animal behavior
- D) Biomedical waste management

**\*Justification:** small animal housing with infected rodents can be achieved through the use of disposable cages.\*

**\*\*Answer:** B) Disposable cages\*\*

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9. What is a key requirement for large animals in a lab animal facility?

- A) Disposable cages
- B) HEPA-filtered racks
- C) Special facilities and equipment
- D) Monitoring and reporting compliance

**\*Justification:** large animals require special facilities and equipment.\*

**\*\*Answer:** C) Special facilities and equipment\*

"واذكر جهودك حينما جاوزت أول منعطف  
أرأيت أنك تستطيع؟ أم أن من قطع المصاعب كانَ شخصًا مُختلف؟  
أنتَ الذي إن شئتَ حوَّلتَ الخريفَ إلى ربيع  
فاعبر وواصل بالمسيرِ إلى طموحك .. لا تخف"

10. What is an essential component mentioned for biorisk management systems?

- A) Biomedical waste management
- B) Knowledge of animal behavior
- C) Monitoring and reporting compliance
- D) Special facilities for large animals

\*Justification: monitoring and reporting compliance is an essential component of biorisk management systems.\*

**\*\*Answer: C) Monitoring and reporting compliance\*\***

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11. What is the primary goal of Biorisk Mitigation practices and equipment?

- A) Increasing laboratory infrastructure
- B) Reducing the risk of infection
- C) Enhancing workplace immunization
- D) Implementing federal regulations

\*Justification: Biorisk Mitigation involves practices and equipment to reduce the biological risk, particularly the risk of infection.\*

**\*\*Answer: B) Reducing the risk of infection\*\***

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12. What does Workplace Immunization primarily aim to reduce?

- A) Laboratory accidents
- B) Employee fatigue
- C) Biorisk associated with infection
- D) Equipment maintenance costs

\*Justification: Workplace Immunization is mentioned to reduce biorisk, specifically the risk associated with infection.\*

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Answer: C) Biorisk associated with infection

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13. How is laboratory biosecurity implemented to prevent unauthorized access to biological agents?

- A) Unrestricted access to laboratory facilities
- B) Limited access to unauthorized personnel
- C) Absence of proper signage
- D) Open freezer access

Justification: laboratory biosecurity is implemented through limited access to unauthorized personnel.

Answer: B) Limited access to unauthorized personnel

14. What is the common characteristic of Recombinant Nucleic Acids?

- A) They cannot replicate in a living cell
- B) They lack the ability for genetic recombination
- C) They are synthesized only by humans
- D) They are constructed by joining nucleic acid molecules and can replicate in a living cell

Justification: Recombinant Nucleic Acids are molecules constructed by joining nucleic acid molecules and can replicate in a living cell.

Answer: D) They are constructed by joining nucleic acid molecules and can replicate in a living cell

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15 . What is the primary role of Institutional Biosafety Committees (IBCs) under NIH guidelines?

- A) Oversight of laboratory infrastructure
- B) Local review and oversight of research involving various biological materials
- C) Enforcing federal regulations
- D) Providing permits for hazardous material shipping

Justification: IBCs were established to provide local review and oversight of research involving various biological materials.

Answer: B) Local review and oversight of research involving various biological materials

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16 . How does the World Health Organization (WHO) define Emerging Infectious Diseases (EIDs)?

- A) Diseases that have existed for a long time
- B) Diseases affecting animals only
- C) Novel diseases emerging in a population for the first time
- D) Diseases unaffected by global mobility

\*Justification: WHO defines EIDs as novel diseases emerging in a population for the first time.\*

\*\*Answer: C) Novel diseases emerging in a population for the first time\*\*

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17. What is the significance of zoonosis in Emerging Infectious Diseases (EIDs)?

- A) Zoonosis only affects animals
- B) Zoonosis is irrelevant to EIDs
- C) Zoonosis involves diseases affecting both animals and people
- D) Zoonosis prevents the spread of EIDs

\*Justification: zoonosis involves diseases affecting both animals and people and is important in Emerging Infectious Diseases.\*

\*\*Answer: C) Zoonosis involves diseases affecting both animals and people\*\*

18 . What is included in the intentional release or threat of release in bioterrorism ?

- A) Chemical agents
- B) Food crops and livestock
- C) Physical weapons
- D) Viruses, bacteria, fungi, and toxins

\*Justification: the intentional release or threat of release includes viruses, bacteria, fungi, and toxins.\*

**\*\*Answer: D) Viruses, bacteria, fungi, and toxins\*\***

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19 . How is the Bioterrorism Threat calculated according to the passage?

- A) Vulnerability ÷ Intent ÷ Capability
- B) Vulnerability + Intent + Capability
- C) Vulnerability x Intent x Capability
- D) Vulnerability - Intent - Capability

\*Justification: The passage states that the Bioterrorism Threat is calculated as Vulnerability x Intent x Capability.\*

**\*\*Answer: C) Vulnerability x Intent x Capability\*\***

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20 . What is highlighted as an ethical responsibility for labs in managing bio risk in the context of bioterrorism?

- A) Maximizing the release of biologic agents
- B) Ignoring the nature of the threat
- C) Minimizing the risk of biohazards
- D) Avoiding risk assessments

\*Justification: the ethical responsibility for labs to manage bio risk and minimize the risk of biohazards.\*

**\*\*Answer: C) Minimizing the risk of biohazards\*\***

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